

## REMARKS

Claims 1-21 are pending in the present application and stand rejected. The Examiner's reconsideration is respectfully requested in view of the following remarks.

Claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Pong (U.S. Pub. No. 2002/0053004) (hereinafter "Pong"). The rejection is respectfully traversed.

The Office Action argues that paragraphs [003], [004] and [0013] of Pong anticipate "monitoring access conditions of respective tasks to data shared among cache memories in the processor modules," as claimed in claim 1. Applicants respectfully disagree because the recited portions of Pong do not explicitly disclose "monitoring access conditions *of respective tasks*."

The Office Action specifically points to paragraph 4 of Pong, which states that "[t]he objective of [cache-coherence] protocols is to track the state of any sharing *of a data block*." An example of a "snooping" mechanism is described, which is simply a mechanism allowing cache controllers to "snoop" a shared-memory bus to determine whether a cache has a valid (or invalid) copy of the requested data block. (See paragraph 13 of Pong: "state information associated with each data block indicates whether a copy of the data block is valid or invalid.") However, as is clear from the above, the recited portions of Pong do not explicitly disclose "monitoring access conditions *of respective tasks*."

The Office Action argues that claim 17 and paragraphs [003], [004] and [0013] of Pong anticipate "allocating tasks that make frequent accesses to the same shared data to processors in the same modules, on the basis of said access conditions," as claimed in claim 1. It is respectfully submitted that because Pong does not disclose "monitoring

access conditions of respective tasks,” it logically follows that Pong cannot disclose “allocating tasks that make frequent accesses...on the basis of the access conditions.”

For the step of allocating as claimed in claim 1, the Office Action specifically points to claim 17 of Pong which claims “buffering most frequently accessed blocks.” This argument is flawed for at least a couple of reasons.

First, the Office Action seems to be confusing terms. Claim 17 of Pong discloses “buffering frequently accessed *blocks*” which is patentable distinguishable from “allocating *tasks* that make frequent accesses,” as claimed in claim 1. In particular, claim 17 of Pong is entirely unconcerned with which tasks are making the frequent accesses; it is concerned only that a data block itself is frequently accessed, whether the accesses are from a few tasks or many tasks.

Second, the Office Action’s citation of claim language in a published patent application is inherently problematic. Claims are used by patent applications not to disclose subject matter, but rather to acquire protection for subject matter. That is why claims are generally interpreted in light of the specification. By citing claim language rather than the portion of the specification describing the claim language, the Office Action conveniently avoids interpreting the claim language of the cited reference in light of the specification. It is respectfully submitted that this is improper.

Further, the Office Action arbitrarily splits the claim language but does not link the respective parts in accord with the claim language. Even assuming, *arguendo*, that claim 17 of Pong anticipates “allocating tasks that make frequent accesses to the same shared data to processors in the same module,” claim 17 of Pong does not disclose that the tasks are allocated “on the basis of said access conditions,” as claimed in claim 1.

As is clear from the above, the Office Action has not shown that Pong discloses each and every element of claim 1, and, thus, has not established *prima facie* anticipation. Accordingly, claim 1 is believed to be patentably distinguishable over Pong.

Claims 9, 11, 12, 15, 17, 18 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pong. The rejection is respectfully traversed.

Independent claims 9, 15 and 21 are allowable for at least the reasons given for claim 1 and the following additional reasons. The Office Action argues that the memory controller (130) as taught by Pong discloses “a detector for detecting accesses by respective tasks to data shared among cache memories in the processor modules,” as claimed in claims 9, 15 and 21. Applicants respectfully disagree. The Office Action does not provide a relevant citation disclosing that the memory controller (130) of Pong teaches or suggests “detecting accesses *by respective tasks*.” As previously asserted, Pong is entirely unconcerned with which tasks are accessing the shared data.

Claims 9, 15 and 21 claim, *inter alia*, “a storage device for storing an address of the shared data, identification information of the tasks that accessed the shared data, and the number of accesses to the same shared data by the same task.” The Office Action does not address “storing an address of the shared data” and “the number of accesses of the same shared data by the same task.” It is respectfully submitted that this is not taught or suggested by the recited portions of Pong.

Further, the Office Action summarily, and without citation, asserts that “it would have been obvious to one of ordinary skill in the art that tasks have associated with it identification information because tasks cannot be executed without identifying which task to be executed.” The argument is flawed. The storage device is claimed to be storing

identification information *after* the tasks accessed the shared data. That is, using the Office Action's language, the task was already "executed" prior to storing the identification information. It simply does not logically make sense that task identifications are stored after the task is executed because the tasks cannot be executed without identifying the tasks.

Regarding claims 9 and 21, the Office Action further does not address "an allocator for allocating tasks that make frequent accesses to the same shared data to processors in the same module, on the basis of the number of accesses." It is respectfully submitted that this is not taught or suggested by the recited portions of Pong.

As is clear from the above, the Office Action has not shown that Pong discloses each and every element of claims 9, 15 and 21, and, thus, has not established *prima facie* obviousness. Accordingly, claims 9, 15 and 21 are believed to be patentably distinguishable and nonobvious over Pong.

Other rejections include in the following. Claims 2-5, 10 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pong in view of Kaneko et al. (U.S. Patent No. 5,349,656) (hereinafter "Kaneko"). Claims 6-8, 14, and 19-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pong in view of Kaneko, and further in view of Barajas et al. (U.S. Patent No. 5,598,551) (hereinafter "Barajas"). Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Pong in view of Barajas.

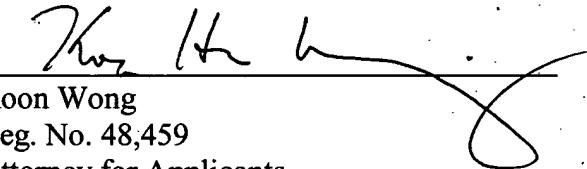
Dependent claims 2-8 are believed to be allowable for at least the reasons given for independent claim 1. Withdrawal of the rejection of claims 1-8 under 35 U.S.C. § 102(e) is respectfully requested.

Dependent claims 10-14 and 16-20 are believed to be allowable for at the least the reasons given for independent claims 9, 15 and 21. Withdrawing of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

In view of the foregoing remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable reconsideration is respectfully requested.

Respectfully submitted,

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